# Pocket Programs

## Commodore 64

### MESSAGE ENCRYPTOR

While recently engrossed in some junk spy novel, I wondered if it were possible to write a simple BASIC message encryption/decryption program which was reasonably friendly and, at the same time, difficult to crack.

The result is attached. Although written on a Commodore 64, the program lines are straight BASIC, except for the printer commands, and shouldn't require many changes to be transportable to other machines.

The actual mechanics of the program are fairly simple:

1. The program is driven by a codeword which can be as long or as short as required. A codeword of five or more letters or numbers is required in the attached program. This can be amended with a change to lines 90 and 265.

2. It ascertains the ASCII value of each letter of the message input from the keyboard.

3. It finds the ASCII value of a selected letter from the codeword.

4. The program multiplies the two values together to produce a four-figure number, which is the code for each input letter.

5. The device used to take the code out of the realms of simple letter replacement is that the letter selected from the codeword as the multiplier changes one letter each cycle of the loop. This ensures that even if the same letter is entered twice, the output code value will be different.

6. A message can be encoded simply by using the codeword, and decoded by the same codeword, but it's almost impossible to crack any other way.

*Peter Foye,*
*Balmain, NSW.*

```
READY.
5 REM" **MESSAGE ENCRYPTOR**"
6 REM" **BY PETER FOYE"
7 REM
10 PRINT"■"
12 PRINTTAB(10)"MESSAGE ENCRYPTOR"
14 PRINTTAB(9)"━━━━━━━━━━━━━━━━━━━"
20 PRINT"WHAT IS THE KEY FOR THIS MESSAGE?":INPUT K$
30 PRINT:PRINT:PRINT"TYPE YOUR MESSAGE"
35 OPEN 3,4
90 FOR X=1 TO 5
100 GET A$:IF A$=""THEN 100
130 B=ASC(A$)
140 C$=MID$(K$,X,1)
150 D=ASC(C$)
160 E=B*D
165 PRINT A$"..."E
167 PRINT#3,E
170 NEXT X
175 CLOSE 3
180 GOTO 90
190 REM
200 REM" **MESSAGE DECRYPTOR**"
220 REM" **BY PETER FOYE"
225 REM
230 PRINT"■"
240 PRINTTAB(10)"MESSAGE DECRYPTOR"
250 PRINTTAB(9)"━━━━━━━━━━━━━━━━━━━"
260 PRINT"WHAT IS YOUR CODE FOR THIS MESSAGE?":INPUT K$
265 FOR X=1 TO 5
270 PRINT:PRINT:PRINT"TYPE THE NUMBERS":INPUT L
310 C$=MID$(K$,X,1)
320 D=ASC(C$)
330 B=L/D
335 E$=CHR$(B)
340 PRINT E$
342 OPEN 3,4
345 PRINT#3,E$
347 CLOSE 3
350 NEXT X
360 GOTO 265
READY.
```

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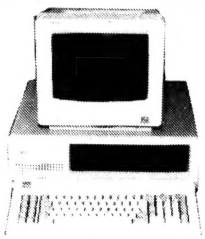

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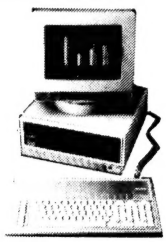

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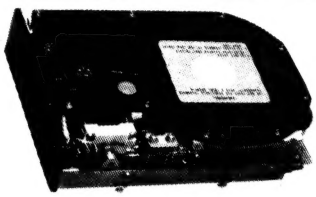

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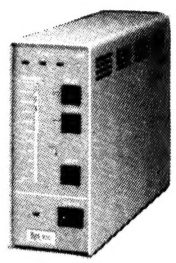

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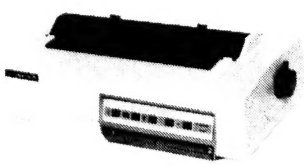

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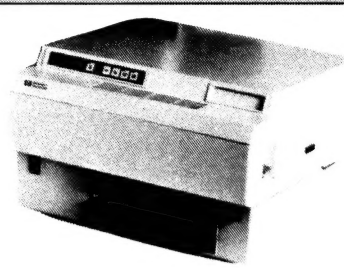

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## GUESS3

The object of this game is to guess a three-letter word chosen at random by the computer. The game is over when you guess the word, or after 10 unsuccessful attempts. Guesses are checked by the computer and the following codes are displayed:

**(Y)** — A letter is in the correct position.
**(N)** — A letter is in the wrong position.
**(-)** — A letter is not correct.

The program's initial dictionary consists of 50 words, but many more could be added — the only restriction is the amount of memory available. Also note all words must contain three different letters. To enlarge the program's dictionary you simply add DATA statements containing the new words to the end of the program. You will also need to change the randomising number in line 210.

*Lonnie Riley,*
*Banyo, QLD.*

```
00100 REM ***** Guess a 3 letter word *****
00110 CLEAR : DIM W1(3), G1(3) : POKE 257,2
00120 CLS : LORES : C=0 : H=0 : T=0
00130 PLOT 0,0 TO 0,47 TO 64,47 TO 64,0 TO 0,0 : PLOT 47,0 TO 47,40
00140 CURS 72 : PRINT "G u e s s - 3" : PLOT 0,40 TO 64,40
00150 FOR X=257 TO 833 STEP 64 : CURS X : Y=X/64-3 : IF Y<10 THEN PRINT " ";Y;".
" ELSE PRINT Y"."
00160 NEXT X
00170 NORMAL
00180 CURS 38 : PRINT "(Y)  Correct Place" : CURS 102 : PRINT "(N)  Wrong Place"
 : CURS 166 : PRINT "(-)  No Match"
00190 REM ***** Computer chooses word *****
00200 RESTORE 590
00210 Y=INT(RND*50)+1
00220 FOR X=1 TO Y : READW1$ : NEXT X
00230 REM ***** Input a guess *****
00240 CURS 290 : PRINT "What is your guess :  "
00250 PLAY1 : CURS 354 : PRINT [A18 32]
00260 POKE 220,13 : CURS 354 : INPUT G1$
00270 REM ***** Check for 3 unique letters *****
00280 IF LEN(G1$) <> 3 THEN CURS 418 : PRINT "Please enter a 3 letter word!" : G
OTO 240
00290 IF G1$(;1,1) = G1$(;2,2) THEN 330
00300 IF G1$(;1,1) = G1$(;3,3) THEN 330
00310 IF G1$(;2,2) = G1$(;3,3) THEN 330
00320 GOTO 350
00330 CURS 418 : PRINT "No two letters are the same! " : GOTO 240
00340 REM ***** Compare guess with computers word *****
00350 C=0 : H=0 : T=T+1 : CURS 418 : PRINT [A29 32]
00360 FOR X=1 TO 3
00370 FOR Y=1 TO 3
00380 IF G1$(;X,X) <> W1$(;Y,Y) THEN 430
00390 IF X=Y THEN 420
00400 H=H+1
00410 GOTO 430
00420 C=C+1
00430 NEXT Y
00440 NEXT X
00450 X=201+T*64
00460 CURS 219+64*T : PRINT G1$
00470 IF C>0 THEN FOR Y=1 TO C : CURS X+(Y-1)*3 : PRINT "Y" : NEXT Y
00480 X=201+T*64+C*3
00490 IF H>0 THEN FOR Y=1 TO H : CURS X+(Y-1)*3 : PRINT "N" : NEXT Y
00500 X=201+T*64+(C+H)*3
00510 IF C+H<3 THEN FOR Y=1 TO (3-(C+H)) : CURS X+(Y-1)*3 : PRINT "-" : NEXT Y
00520 IF C=3 THEN CURS 610 : PLAY1;2;3;4 : PRINT "Congratulations!" : CURS 674 :
 PRINT "You guessed it!" : GOTO 550
00530 IF T=10 THEN CURS 610 : PRINT "Sorry!" : PLAY4,3;1,3 : CURS 674 : PRINT "T
he word was ";W1$ : GOTO 550
00540 GOTO 240
00550 CURS 930 : PRINT "Play again (Y/N)? "
00560 Z1$=KEY$ : IF Z1$="" THEN 560
00570 IF Z1$<>"Y" AND Z1$<>"N" THEN 550
00580 PRINT Z1$ : IF Z1$="Y" THEN 110 ELSE PRINT "Thanks for playing!" : END
00590 DATA "POT","PEG","PAT","PIN","PET","PEN","PUN","PUT","PUB","POD"
00600 DATA "TUG","TIN","TON","TOP","TEN","THE","THY","TIC","TOW","TRY"
00610 DATA "RUN","RIM","RIG","RAM","RUT","RAW","RIT","RED","RAP","RUB"
00620 DATA "SAT","SEA","SAW","SET","SAD","SUN","SUM","SIN","SON","SOD"
00630 DATA "BET","BEG","BED","BAD","BAN","BAT","BUT","BUN","BUG","BIT"
```

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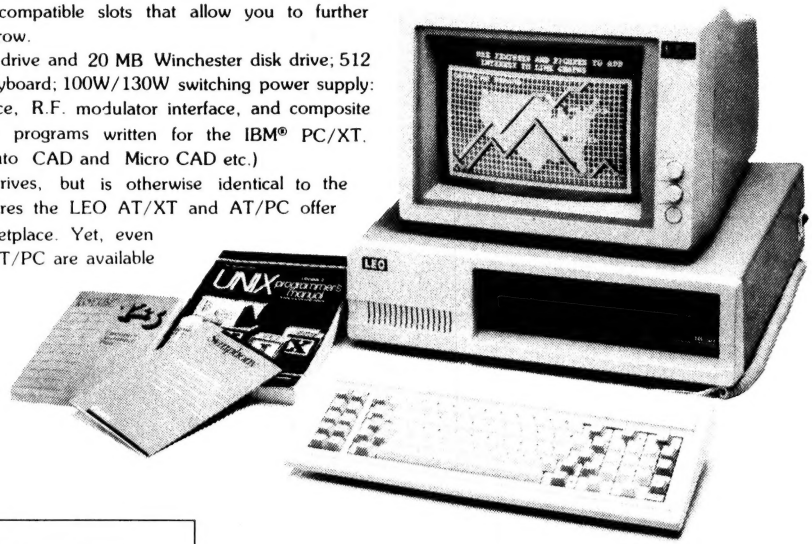


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To be listed, the program must have been saved as a sequential file, using the 'A' option.

When run, 'Tidy' first prompts for a filename. Errors are not trapped, so if the file does not exist you will receive the standard error message and be returned to BASIC.

After the file has been opened, you will be asked to specify a format. First, you must nominate the screen or the printer as the output device. Entering 'P' (CR) will set the internal plotter to 80 columns and shorten the page length to 40 lines.

The next choice is between normal or extended spacing. Choosing extended spacing will insert the breaks before labels and around REMs.

The final question, whether to 'suppress' or not to suppress, controls whether or not the line number and REM statement are displayed.

Answering 'Y' will replace the line number and REM statement with the string '* * *', but will leave the rest of the line alone.

### Hints on Conversion

In line 620, CHR$ (17) performs a linefeed on the Sharp's video display.

In line 630, CHR$(10) causes a linefeed on the printer.

Also in line 630, the asterisk between the logical expressions performs a logical 'AND'. On other systems, this line should probably read 'IF PD=2 AND T$="E" THEN'.

Line 560 opens a sequential data file whose name is in the string PN$, so data can be read from it on channel 1.

The LABEL statement is rather like the Beeb's DEF PROC. A name can be assigned to a line and GOTO and GOSUB commands can refer to the name, rather than the line number.

In line 130, Disk BASIC (nobody in their right mind would call it BASIC 5Z-008) treats EOF as an error trap of sorts. When the end of the file is reached, the program will execute the statements following THEN.

*Matthew Cochrane,*
*Albany, WA.*

## *Sharp* MZ-700

```
10 REM         PRINT
20 REM LISTS BASIC PROGRAMS IN AN
30 REM IMPROVED FORMAT
40 REM PROGRAMS MUST HAVE BEEN SAVED
50 REM AS A SEQUENTIAL FILE
60 REM ie USING THE `A' OPTION
70 REM
80 REM BY M.COCHRANE APRIL 1985
90 REM
100 REM INITIALISE
110 GOSUB "INIT"
120 REM GET A LINE
130 IF EOF(#1) THEN CLOSE:END
140 INPUT#1,A$
150 IF A$="" THEN 120
160 Z$=""
170 REM GET LINE NO
180 FOR C=1 TO LEN(A$)
190 IF MID$(A$,C,1)=" " THEN Z$=SPACE$(6
-C)+LEFT$(A$,C):A$=RIGHT$(A$,LEN(A$)-C):
GOTO 210
200 NEXT C
210 REM A LABEL
220 IF LEFT$(A$,5)="LABEL" THEN Z$=CS$+Z
$
230 REM A REM
240 IF LEFT$(A$,3)="REM" THEN GOSUB "REM
ARK":GOSUB "PRINT":GOTO 120
250 REM LOOK FOR `FOR'
260 S$="FOR "
270 GOSUB "SEARCH"
280 NI=NI+NO
290 REM LOOK FOR `NEXT'
300 S$="NEXT "
310 GOSUB "SEARCH"
320 NI=NI-NO
330 IF NI<0 THEN NI=0
340 REM FINAL FORMAT
350 Z$=Z$+SPACE$(NI)+A$
360 IF PLR=-1 THEN PLR=0:Z$=CS$+Z$
```


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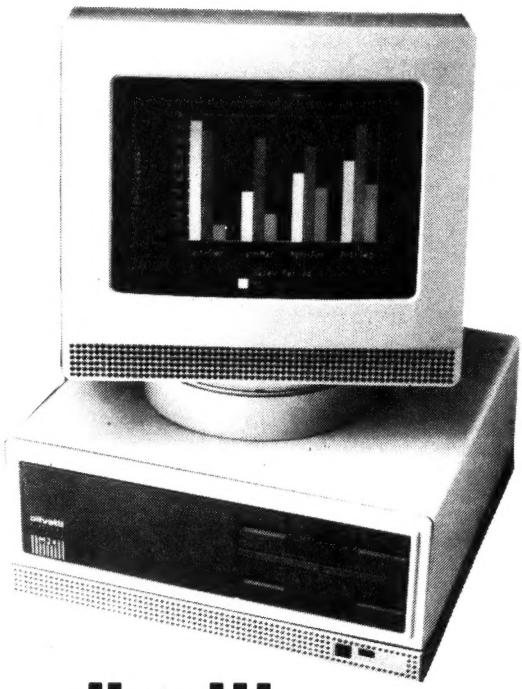
# *Sharp* MZ-700

```
370 GOSUB "PRINT"
380 GOTO 120
390 LABEL "PRINT"
400 ON PD GOTO 410,420
410 PRINTZ$:RETURN
420 PRINT/P Z$:RETURN
430 LABEL "SEARCH"
440 NO=0
450 QF=0
460 FOR C=1 TO LEN(A$)-LEN(S$)
470 IF MID$(A$,C,1)=CHR$($22) THEN QF=1-
QF
480 IF QF=1 THEN 500
490 IF MID$(A$,C,LEN(S$))=S$ THEN NO=NO+
500 NEXT C
510 RETURN
520 LABEL "INIT"
530 NI=0
540 PLR=0
550 INPUT "File Name       ?";PN$
560 ROPEN#1,"QD:"+PN$
570 INPUT "Output   (P/S) ?";T$
580 PD=1
590 IF T$="P" THEN PD=2:MODE T5:PAGE 40
600 INPUT "Spacing  (N/E) ?";T$

610 CS$=""
620 IF T$="E" THEN CS$=CHR$(17)
630 IF (PD=2)*(T$="E") THEN CS$=CHR$(10)
640 INPUT "Suppress (Y/N) ?";T$
650 RS=0
660 IF T$="Y" THEN RS=-1
670 RETURN
680 LABEL "REMARK"
690 IF RS THEN Z$="* * *":A$=RIGHT$(A$,L
EN(A$)-3)
700 Z$=Z$+A$
710 IF PLR=0 THEN Z$=CS$+Z$:PLR=-1
720 RETURN
```

# Can't decide?



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# Commodore 64

## WILDERNESS

This fantasy game was written by my brother Paul and myself, and is similar to 'Dungeons and Dragons', in that you wander around searching for treasure and fighting monsters. It includes a dungeon, which may be entered from the wilderness, and as you venture forth, fighting monsters (greblies) along the way, your character gains experience points, which allow you to go up in levels of skill. The game is complete and runs bug-free (as far as we can tell), but as yet has no defined ending. Due to a lack of programming utilities (renumber and so on), it became too difficult for us to go on expanding the game, but features we intended to include were:

- Magic spells
- Scrolls
- Amulets
- Friendly/unfriendly encounters
- Magic books
- Assorted treasures
- More monsters
- Crynts
- Villages
- 'Save game' feature
- Night/day
- More weapons
- Divine intervention (the gods).

Perhaps readers will be able to incorporate these features themselves.

The commands are:

**m** — (move) advances you to the next screen in the wilderness or next room in the dungeon.
**s** — (search) searches the area/room for treasure/weapons.
**x** — (status) displays your character's status, strength, possessions and hit points.
**c** — (print commands) displays the available commands.
**a** — (attack) attacks the monster in your area/room. The monster must be in range to be attacked; the 'move' command advances you into range.
**i** — (identify) identifies what kind of monster is on screen/in the room.

```
LISTING OF 'WILDERNESS'
FOR THE COMMODORE 64
25/9/85

WRITTEN BY PAUL STUART
WITH MODIFICATIONS
BY ANDREW STUART

ORIGINAL CONCEPT FROM
THE GAME 'WILDERNESS'
FOR THE SORCEROR COMPUTER.
CONVERTED AND RE-WRITTEN
FOR THE COMMODORE 64 BY
PAUL STUART

PLEASE FEEL FREE TO MODIFY
OR TO CONVERT TO OTHER
SYSTEMS.


10 GOSUB 7300
200 REM ********************************
210 REM *                              *
220 REM *        DUNGEON               *
230 REM *                              *
240 REM ********************************
250 REM   WRITTEN BY PAUL STUART
260 REM        WITH   ANDREW STUART
270 REM
280 REM       DATE:25/4/84
290 REM
300 REM       VERSION 7
310 REM
320 REM
330 REM
340 REM*******SPRITE CREATION*********
350 REM
430 POKE 53280,0 : POKE 53281,0
432 POKE 646,11
440 PRINT CHR$(147)
442 V=53248
451 POKE V+21,4 : REM ENABLES SPRITE 2
453 POKE 2042 ,13 : REM DATA LOCATION
455 FOR N=0 TO 15:POKE 832+N,0:NEXT N
457 FOR N=0 TO 30:READ Q:POKE 848+N,Q:      NEXT N
459 FOR N=0 TO 15:POKE 879+N,0:NEXT N
461 DATA 48,0,0,72,0,0,72,0,0,48,0,0
462 DATA 252,0,0,48,0,0,48,0,0,48
463 DATA 0,0,72,0,0,72,0,0,204
730 REM
740 DIM W$(12)
745 DIM DUNJ(22,5)
750 GOTO 1200
755 REM
760 REM ****** DUNGEON GENERATION ******
765 REM
766 REM DUNJ(RM YOU ARE IN,0) GIVES ROW
767 REM NO OF DUNJ WHICH HAS DETAILS OF
768 REM THAT ROOM
770 RESTORE
775 FOR M=1 TO 31 :READ Q:NEXT M
780 FOR D=1 TO 22
800 R=INT(RND(1)*22)+1
820 FOR E=1 TO D
840 IF DUNJ(E,1)=R THEN 800
860 NEXT E
880 DUNJ(D,1)=R :DUNJ(R,0)=D:               DUNJ(D,5)=INT(RND(1)*10)+1
900 NEXT D
905 CN=INT(RND(1)*22)+1
930 FOR L =1 TO 22
940 READ L1,L2,L3
960 DUNJ(L,2)=DUNJ(L1,1)
```

# Commodore 64

r — (run) is for when you're about to lose a fight.
se — (search) is used to enter a dungeon and find out if there's another way out.
l — (look) redraws the wilderness map or describes the current dungeon chamber again.

Paul has attempted to write the program with some sort of structure; it's composed of a number of separate subroutines to make expansion or conversion a little easier. We've also attempted to use as few of those funny-looking Commodore graphics characters as possible; where they do appear they're only for screen formatting.

We would like feedback on the

```
980 DUNJ(L,3)=DUNJ(L2,1)
1000 DUNJ(L,4)=DUNJ(L3,1)
1020 NEXT L
1040 DATA 2,3,5,1,3,5,1,2,4,3,5,6,1,2,4
1060 DATA 4,7,9,6,8,11,7,9,10,6,8,14,8
1080 DATA 12,13,7,15,16,10,13,17,10,12,17
1100 DATA 9,18,19,11,16,22,11
1120 DATA 15,22,12,13,21,20,19,14,20,18
1140 DATA 14,18,19,21,20,17,22,15,16,21
1170 TR$="NOTHING OF VALUE"
1175 RETURN
1180 REM
1200 REM *******CHARACTER CREATION*****
1220 REM
1240 PM=30 : HP=30  : DD=0
1260 SB=INT(RND(1)*7)-1
1280 IF SB<0 THEN SB=0
1300 DB=INT(RND(1)*6)-1
1320 IF DB<0 THEN DB=0
1340 W$(1)="1.  BARE HANDS"
1360 W$(2)="2.  DAGGER"
1380 W$(3)="3.  SWORD"
1390 ARMOUR$(1)="1. LEATHER ARMOUR":AA=1
1400 LEVEL=1:XP=0 : CD=20 : CA=20 : W=3      :WF=30
1405 TR$="NOTHING OF VALUE"
1410 PRINT CHR$(147)
```


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## *Commodore 64*

program; if there are any enquiries, bugs found, suggestions (no criticism, please), or if anyone wants a disk or tape version, please contact Paul on (03) 29 1949 or me (Andrew) on (03) 836 0775.

*Andrew Stuart,*
*Surrey Hills, VIC.*

```
1415 POKEV+4,0 : POKE V+5,0
1420 GOSUB 5510
1460 PRINT CHR$(147)
1480 GOSUB 5710
1500 PRINT CHR$(147)
1510 GOTO 1930
1520 REM
1540 REM *********MOVEMENT*********
1560 REM
1570 PRINT
1580 PRINT "TO WHICH ROOM:";B;C;D;
1600 INPUT A%
1610 IF A%=B THEN FF=B: GOTO 1650
1620 IF A%=C THEN FF=C : GOTO 1650
1630 IF A%=D THEN FF=D : GOTO 1650
1640 PRINT " HOW ?" : GOTO 1580
1650 CN=DUNJ(FF,0)
1660 IF HP<PM THEN HP=HP+3
1670 TR$="NOTHING OF VALUE"
1760 REM
1770 REM*********POSITION*************
1780 REM
1781 POKE V+5,0:POKE V+4,0
1782 PRINT CHR$(147)
1783 PRINT: PRINT
1785 A=0:B=0:C=0:D=0
```


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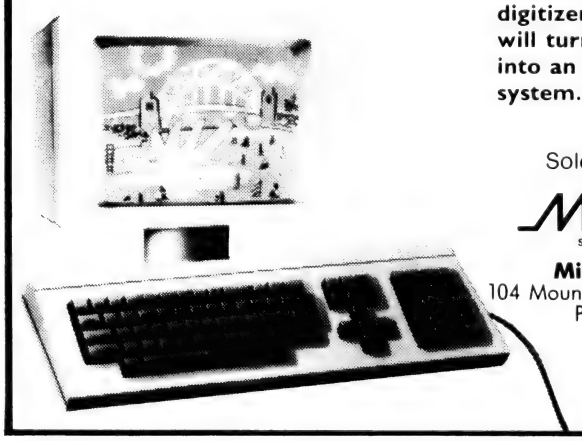

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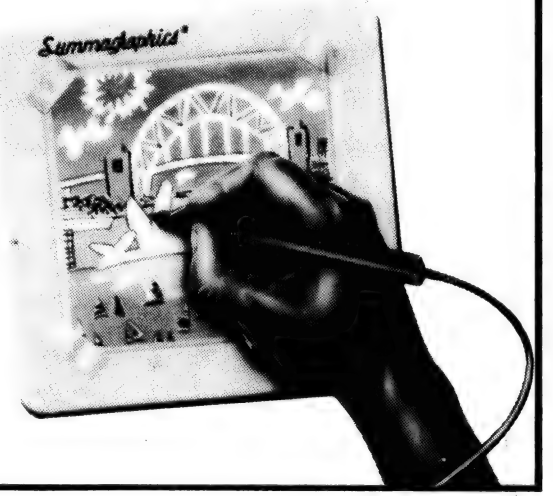


# Commodore 64

```
1790 B=DUNJ(CN,2) : C=DUNJ(CN,3)
1800 D=DUNJ(CN,4) : A=DUNJ(CN,1)
1810 PRINT "YOU ARE IN ROOM ";A
1815 PRINT
1820 PRINT "THIS CHAMBER JOINS ";B",";C",";D :RETURN
1842 REM
1845 REM********WILDERNESS***********
1846 REM
1847 IF DO=1 THEN 1950
1848 PRINT CHR$(147)
1849 POKE V+4,0:POKE V+5,0
1850 PRINT "┌──────────────────┐"
1855 FOR M=1104 TO 1544 STEP 40
1857 POKE M+54272,11 :REM POKE COLOUR
1860 POKE M,71
1865 E=INT(RND(1)*5)+1
1870 FOR G=1 TO E
1872 H=INT(RND(1)*16)+1
1873 IF M=1344 AND H=9 THEN 1872
1875 IF M=1384 AND H=9 THEN 1872
1877 POKE M+H+54272,5
1880 POKE M+H,65
1885 NEXT G
1887 POKE M+17+54272,11
1890 POKE M+17,66
1895 NEXT M
1900 PRINT "■■■■■■■■■■■■└──────────────────┘"
1905 POKE V+4,90
1910 POKE V+5,110
1911 IF HP<PM THEN HP=HP+1
1912 DUNJ=INT(RND(1)*3)+1
1913 IF DUNJ<>1 THEN RETURN
1914 X1=INT(RND(1)*14)+1
1915 IF HP<PM THEN HP=HP+1
1916 Y1=INT(RND(1)*10)+4
1917 POKE X1+40*Y1+1024+54272,6
1918 POKE X1+40*Y1+1024,4
1919 RETURN
1920 RETURN
1930 REM*******************************
1935 IF DO=1 THEN GOSUB 1540
1937 IF DO=0 THEN GOSUB 1845 :REM WILD
1940 GOTO 2200     :REM GREBLIE CHECK
1950 GOSUB 4610    :REM TEASURE CHECK
1955 REM
1960 REM********COMMANDS*************
1970 REM
1980 PRINT : PRINT
1995 A$=""
2000 INPUT "YOUR MOVE";A$
2010 IF DO=0 THEN GOSUB 7000
2020 IF A$="M" THEN 1930
2030 IF A$="X" THEN GOSUB 5510:GOTO 1960
2040 IF A$="S" THEN GOSUB 5910:GOTO 1960
2045 IF A$="SE" AND DO=1 THEN GOSUB 2150      :GOTO 1960
2047 IF A$="SE" AND DO=0 THEN GOTO 6090
2050 IF A$="C" THEN GOSUB 5710:GOTO 1960
2055 IF A$="L" AND DO=1 THEN GOSUB 1770:      GOTO 1960
2057 IF A$="L" AND DO=0 THEN GOSUB 1845:       GOTO 1960
2060 IF A$="" THEN GOTO 1960
2070 IF A$="A" THEN PRINT:PRINT"YOU ARE ALONE" : GOTO 1960
2080 IF A$="I" THEN PRINT "NO VISIBLE ENEMY" : GOTO 1960
2085 IF A$="Z" THEN END
2090 PRINT "I DONT UNDERSTAND.":GOTO 1960
2150 REM*********EXIT****************
2151 PRINT:PRINT "SEARCHING......."
2152 FOR M=1 TO 500:NEXT M
2155 M=INT(RND(1)*5)+1
2160 IF M<>1 THEN PRINT :PRINT                "YOU CAN FIND NO EXIT HERE!":RETURN
2165 PRINT
2170 INPUT"EXIT FOUND,GOING UP";A$
2172 IF A$<>"Y" THEN RETURN
2175 IF A$="Y" THEN DO=0 :PRINT:PRINT         "ENTERING WILDERNESS"
```

# Commodore 64

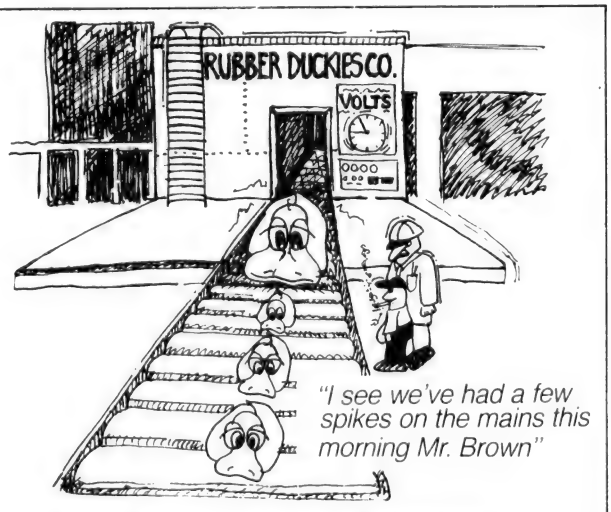
```
2177 FOR M=1 TO 750:NEXT M:PRINT CHR$(147)
2180 PRINT "ENTRANCE SEALS BEHIND YOU"        :FOR M=1 TO 750:NEXT M
2185 GOSUB 1845
2190 RETURN
2200 REM*****RANDOM GREBLIE**********
2205 REM
2210 Q=INT(RND(1)*3)+1
2220 IF Q=1 THEN 2230
2225 IF DO=1 THEN GOTO 1845
2227 GOTO 1950 :REM WILDERNESS MODE
2229 REM
2230 REM******GREBLIE CREATION*******
2235 REM
2240 M= INT (RND(9)*13)+1
2250 ON M GOTO 2260,2270,2280,2290,2300,2310,2320,2330,2340,2350,2360,2370,2380
2260 M$="GERG":MA=25:MD=55:NA=6:DM=4          :MHP=6:AD=1:GOTO 2460
2270 M$="LERG":MA=30:MD=60:NA=6:DM=6          :MHP=4:AD=4:GOTO 2460
2280 M$="GOBLIN":MA=40:MD=60:NA=4:DM=8:       MHP=7:AD=0:GOTO 2460
2290 M$="HUMAN":MA=35:MD=65:NA=4:DM=6:         MHP=4:AD=2:GOTO 2460
2300 M$="CORGURNG":MA=30:MD=70:NA=4:          DM=4:MHP=10:AD=4:GOTO 2460
2310 M$="TROGLODYTE" :MA=30:MD=80:NA=6:       DM=5:MHP=5:AD=5:GOTO 2460
2320 M$="THROON":MA=35:MD=70:NA=6:DM=4:        MHP=6 :AD=5 :GOTO 2460
2330 M$="OGRE":MA=40:MD=75:NA=1:DM=6:         MHP=12:AD=4:GOTO 2460
2340 M$="WHELK ":MA=47:MD=90:NA=4:DM=6:       MHP=8:AD=5:GOTO 2460
2350 M$="ORC":MA=45:MD=80:NA=2:DM=8:          MHP=7:AD=5:GOTO 2460
2360 M$="BIG WORM":MA=35:MD=65:NA=1:          DM=4:MHP=10:AD=6:GOTO 2460
2370 M$="WARG":MA=45:MD=60:NA=5:DM=5:         MHP=4:AD=1:GOTO 2460
2380 M$="NAGRUTHA":MA=30:MD=70:NA=1:          DM=6:MHP=6:AD=3:GOTO 2460
2460 REM******GREBLIE DETAILS**********
2470 REM
2480 NUMBER=INT(RND(1)*NA)+1+(LEVEL-1)
2490 MP=INT(RND(1)*MHP)+1+AD
2500 EX=(MA+MD+DM++MP)*NUMBER
2510 GOSUB 4610
2515 IF DO=1 THEN GOTO 2540
2520 Y=INT(RND(1)*10)+4
2522 X=INT(RND(1)*15)+2
2526 GOTO 2689
2528 GOTO 2550
2530 PRINT
2535 PRINT NUMBER;M$;" BLOCK YOUR WAY"
2540 PRINT
2545 PRINT NUMBER;M$;" BLOCK YOUR WAY"
2550 REM******MELEE COMMAND***********
2560 REM
2570 PRINT
2580 PRINT " YOUR MOVE ";
2585 A$=""
2590 INPUT A$
2595 IF DO=0 THEN GOSUB 7000
2600 IF A$="M" AND DO=1 THEN PRINT:PRINT:"THEY WONT LET YOU PASS":GOTO 2550
2610 IF A$="M" AND DO=0 THEN 2655
2620 IF A$="X" THEN GOSUB 5510:GOTO 2550
2625 IF A$="A" THEN 2761
2630 IF A$="S"THEN GOSUB 5910:IF (X>=7 AND X<=11)AND(Y>=7 ANDY<=11) THEN 3510
2631 IF A$="S" THEN 2550
2632 IF A$="L" AND DO=1 THEN GOSUB 1770:      GOTO 2550
2633 IF A$="L" THEN GOTO 2655:GOTO 2550
2634 IF A$="SE" AND DO=0 THEN 6090:           GOTO 2550
2635 IF A$="SE" AND DO=1 THEN GOSUB 2150      :IF DO=0 THEN 1960
2636 IF A$="SE" AND DO=1 THEN GOTO3510
2640 IF A$="R" THEN 2700
2645 IF A$="I" THEN PRINT "GREBLIES ARE";NUMBER;M$ :GOTO 2550
2647 IF A$="Z" THEN END
2649 IF A$="" THEN 2550
2650 PRINT "I DONT UNDERSTAND THAT COMMAND":GOTO 2550
2654 REM
2655 REM*********GREBLIE MOVER*********
2657 REM
2660 IF(7<=X AND X<=11)AND (Y<=11AND Y>=7) THEN 3510
2665 E=INT(RND(1)*5)+1
2670 IF X<7 THEN X=X+E
2672 IF X>11 THEN X=X-E
```

# Commodore 64

```
2675 E=INT(RND(1)*5)+1
2680 IF Y<7 THEN Y=Y+E
2685 IF Y>11 THEN Y=Y-E
2687 GOSUB 1845 :REM WILDERNESS
2689 IF (7<=X AND X<=11)AND (Y<=11AND Y>=7) THEN PRINT "GREBLIES ARE IN RANGE"
2690 POKE X+40*Y+1024+54272,11
2693 POKE X+40*Y+1024,13
2695 GOTO 2550 : REM MELEE COMMAND
2700 REM
2710 REM********RETREATING***********
2715 REM
2720 M=INT(RND(1)*10)+1
2730 IF M<5 AND DO=1 THEN FF=D:PRINT          "YOU MADE IT":GOSUB 1770:GOTO 1960
2735 IF M<5 AND DO=0 THEN PRINT               "YOU MADE IT"
2737 FOR Y = 1 TO 400:NEXT Y :GOTO 1930
2740 PRINT "YOU DIDNT MAKE IT"
2750 FOR Y= 1 TO 400:NEXT Y
2760 REM
2761 REM********WEAPON CHOOSING*********
2762 REM
2780 REM
2782 IF DO=1 THEN GOTO 2790
2785 IF (7=<YANDY=<11) AND (7=<XANDX=<11) THEN 2790
2786 PRINT "GREBLIES ARE NOT IN RANGE":      GOTO 2550
2790 DAMAGE=0:KILLED=0:HIT=0:R=0
2800 FOR M=1 TO W
2810 PRINT W$(M)
2820 NEXT M
2825 PRINT "WHICH WEAPON";
2830 INPUT A%
2835 M=0
2840 M=M+1
2850 IF VAL(W$(M))=A% THEN 2900
2855 IF M=12 THEN 2870
2860 GOTO 2840
2870 PRINT "YOU DON'T HAVE THAT WEAPON"
2880 GOTO 2830
2900 ON A% GOTO 2910,2920,2930,2940,2950,2960,2970,2980,2981,2982,2983,2984
2910 WA=15:WD=2: GOTO 3100
2920 WA=20: WD=4 : GOTO 3100
2930 WA=30: WD=6: GOTO 3100
2940 WA=30: WD=8:GOTO 3100
2950 WA=35: WD=10 :GOTO 3100
2960 WA=25: WD=12 :GOTO 3100
2970 WA=35 :WD=10 :GOTO 3100
2980 XXXXXXRUNESTAFFXXXXXX
2981 WA=40 : WD=10 : GOTO 3100
2982 WA=30 : WD=12 : GOTO 3100
2983 REM XXXXXXXXARROWXXXXXXXX
2984 WA=45 : WD=8 : GOTO 3100
2985 WA=50 : WD=6 : GOTO 3100
2986 XXXXXXX
2987 XXXXXXXXXX
2988 WA=40 : WD=15 : GOTO 3100
2989 XXXXXHORN
2990 WA=50 : WD=12 : GOTO 3100
2991 WA=60 : WD=15 : GOTO 3100
2992 XXXXXX
3100 REM********PLAYER ATTACK***********
3105 REM
3107 IF DO=0 THEN GOSUB 7000
3110 HIT=(CA+WA+SB+LEVEL)/MD
3115 PRINT "CHANCE TO HIT:";INT(HIT*100);"%"
3120 R=RND(1):PRINT "RESULT:";INT(R*100);"%"
3140 PRINT
3150 PRINT "YOUR ATTACK ";
3155 FOR M=1 TO 700  :NEXT M
3160 IF R<HIT THEN 3170
3162 PRINT "MISSES"
3165 FOR M=1 TO 1000 : NEXT M
3167 GOTO 3510
3170 DAMAGE=INT(RND(1)*WD)+1+LEVEL+SB
3175 PRINT "HITS" ,"DAMAGE:";DAMAGE
```

## Commodore 64

```
3180 DAMAGE=DAMAGE+RMAIN
3190 IF DAMAGE=0 THEN 3230
3200 PRINT
3205 IF DAMAGE>MP THEN KILLED=KILLED+1:      IF DAM>MP THEN DAM=DAM-MP:GOTO3205
3210 NUMBER=NUMBER-KILLED
3220 RMAIN=DAMAGE
3230 IF NUMBER<1 THEN 3280
3240 PRINT
3250 PRINT "GREBLIES SLAIN:";      KILLED
3255 FOR M=1 TO 1000 :NEXT M
3260 KILLED=0 : GOTO 3510
3270 REM ALL GREBLIES KILLED
3280 KILLED=KILLED+NUMBER
3290 PRINT
3300 PRINT "GREBLIES SLAIN:";      KILLED
3310 XP=XP+EX
3320 IF XP>(LEVEL*1000) THEN 3360
3330 RMAIN=0 : NUMBER=0 : DAMAGE=0
3340 KILLED=0:Q=0
3345 FOR M=1 TO 1000 : NEXT M
3347 IF DO=0 THEN GOSUB 7000
3350 GOTO 1960
3360 LEVEL=LEVEL+1
3370 M=INT(RND(1)*5)+1
3380 PM=PM+M
3385 PRINT
3390 PRINT "YOU HAVE REACHED LEVEL";LEV
```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# Commodore 64

```
3395 FOR M=1 TO 2000 : NEXT M
3400 GOTO 3330
3500 REM
3510 REM*********GREBLIE ATTACK********
3520 REM
3525 IF DO=0 THEN GOSUB 7000
3530 HIT=MA/(CD+WF+LEVEL+DB)
3535 PRINT "CHANCE TO HIT:";INT(HIT*100);"%"
3540 PRINT
3550 M=1
3560 PRINT M$;" ATTACKS ";
3570 R=RND(1)
3580 FOR E=1 TO 1000 : NEXT E
3590 IF R<HIT THEN 3640
3600 PRINT "MISS"
3605 IF M=NUMBER THEN 3620
3610 M=M+1 : GOTO 3560
3620 FOR M=1 TO 1000 : NEXT M
3622 IF DO=0 THEN GOSUB 7000
3625 GOTO 2550
3627 REM
3640 DAMAGE=INT(RND(1)*DM)+1
3660 PRINT "HIT       DAMAGE:";DAMAGE
3670 HP=HP-DAMAGE
3675 IF HP<1 THEN 3910
3680 GOTO 3605
3900 REM
3910 REM*******DEATH SECTION**********
3920 REM
3922 RMAIN=0:Q=0:DAMAGE=0
3925 PRINT:PRINT :PRINT
3930 PRINT CHR$(147)
3935 POKE V+4,0:POKE V+5,0
3940 PRINT "THE CHARACTER DIED ......";
3950 PRINT "TOUGH."
3960 PRINT "YOU REACHED LEVEL";LEVEL;         "BEFORE YOU"
3965 PRINT"WERE GROTTED."
3970 PRINT
3990 INPUT "TRY AGAIN (Y/N)";A$
4000 IF A$="Y" THEN 1200
4010 END
4020 REM
4220 PRINT "A STAIRWAY OPENS UP BEFORE";3980
4490 REM
4500 REM*******PAUSE ROUTINE**********
4510 REM
4515 PRINT
4520 PRINT"PRESS ANY KEY TO CONTINUE";
4522 GET A$:IF A$="" THEN 4522
4530 RETURN
4600 REM
4610 REM********TREASURE CHECK*********
4620 REM
4621 IF DO=0 THEN 4630
4622 IF DUNJ(CN,5)=1 THEN DUNJ(CN,5)=0:       GOTO 4670
4625 RETURN
4630 M=INT(RND(1)*4)+1
4640 IF M=1 THEN 4670
4650 RETURN
4660 REM
4670 REM ******TREASURE DETERMINER*****
4680 REM
4700 M=INT(RND(1)*(LEVEL+9))+1
4710 ON M GOTO 4720,4730,4740,4750,4750,  4770,4780,4790,4800,4810,4810,4810
4720 TR$="4. MORNING STAR": RETURN
4730 TR$="5. BATTLE AXE": RETURN
4740 TR$="6. SILVER DAGGER" : RETURN
4750 TR$="7. LLOYD SWORD": RETURN
4760 TR$="8. RUNESTAFF" : RETURN
4770 TR$="9. TROLLS ARM": RETURN
4780 TR$="10. SERPENT STAFF":RETURN
4790 TR$="11. CRYSTAL ARROW":RETURN
4800 TR$="12. MACE OF DISRUPTION":RETURN
```

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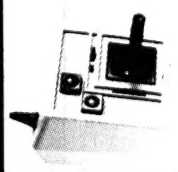

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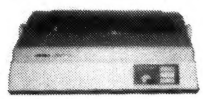

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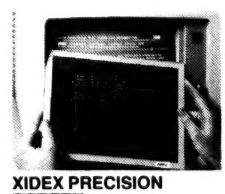

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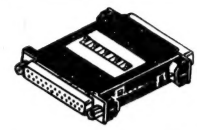

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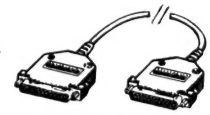

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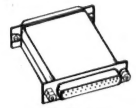

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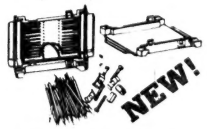


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# Commodore 64

```
4810 TR$="13. FIRE HAMMER":RETURN
4820 TR$="14. ":RETURN
4830 TR$="15. ":RETURN
4840 TR$="16. VORPAL BLADE":RETURN
4850 TR$="17. HORN OF SUMMONING":RETURN
4860 TR$="18. TRIDENT OF DAEMONS":RETURN
4870 TR$="19. STORMBRINGER":RETURN
4880 TR$="20. ":RETURN
5500 REM
5510 REM******DISPLAY STATUS************
5520 REM
5530 PRINT
5540 PRINT "HIT POINTS=";HP
5550 PRINT "STRENGTH BONUS=";SB
5560 PRINT"DEXTERITY BONUS=";DB
5570 PRINT "YOUR WEAPONS ARE:"
5580 FOR M=1 TO W
5590 PRINT TAB(17); W$(M)
5600 NEXT M
5605 PRINT "YOU ARE WEARING";ARMOUR$(AA)
5610 PRINT "YOUR LEVEL=";LEVEL
5620 PRINT"EXPERIENCE POINTS=";XP
5630 GOSUB 4500
5640 RETURN
5700 REM
5710 REM*******DISPLAY COMMANDS********
5720 REM
5740 PRINT TAB(2);"COMMANDS:":PRINT
5750 PRINT TAB(4);"M MOVE",
5760 PRINT "S SEARCH"
5770 PRINT TAB(4);"X STATUS",
5780 PRINT "C PRINT COMMANDS"
5790 PRINT TAB(4);"A ATTACK",
5800 PRINT "I IDENTIFY GREBLIE"
5810 PRINT TAB(4);"R RUN   ",
5820 PRINT "SE SEARCH ENTRANCE"
5825 PRINT TAB(4);"SE EXIT",
5830 PRINT "L LOOK"
5840 GOSUB 4500
5860 IF DO=0 THEN GOSUB 7000
5880 RETURN
5900 REM
5910 REM*********SEARCHING SECTION*****
5920 REM
5924 FOR M=1 TO W
5925 IF W$(M)=TR$ THEN TR$="NOTHING OF VALUE"
5926 NEXT M
5930 PRINT
5940 PRINT "YOU FIND ........";
5950 FOR M=1 TO 500: NEXT M
5960 PRINT TR$
5970 IF TR$="NOTHING OF VALUE" THEN RETURN
5980 W=W+1
5990 W$(W)=TR$
6000 TR$="NOTHING OF VALUE"
6010 RETURN
6080 REM
6090 REM*********ENTRANCE ROUTINE******
6095 REM
6096 A$="NO ENTRANCE TO THE UNDERWORLD CAN BE FOUND"
6097 IF DUNJ<>1 THEN PRINT A$:GOTO 6099
6098 GOTO 6105
6099 IF Q=1 THEN GOTO 2550
6100 IF Q<>1 THEN 1960
6105 PRINT "ENTRANCE TO DUNGEON FOUND,";
6110 A$=""
6120 INPUT "GOING DOWN";A$
6140 IF A$<>"Y" THEN 6099
6150 POKE V+4,0:POKE V+5,0
6155 DUNJ=0
6157 PRINT CHR$(147)
6158 FOR Y = 1 TO 11:PRINT:NEXT Y
6160 PRINTTAB(6)"DESCENDING INTO UNDERWORLD."
6170 GOSUB 760   :REM DUNJ GENERATER
6180 DO=1 :Q=0:  GOSUB 1770
6190 GOTO 1960
7000 REM
7020 REM *******SCREEN CLEAR ********
7040 REM
7060 PRINT CHR$(19)
7080 FOR M=1 TO 7
7100 PRINT CHR$(17)  :REM CURSOR DOWN
7120 NEXTM
7140 FOR M=1 TO 9
7160 PRINT "                                        "
7180 NEXT M
7200 PRINT "TTTTTTTTT"
7260 RETURN
7300 REM *********INTRO SCREEN********
7301 PRINT CHR$(147)
7302 POKE 53272,22
7303 POKE 53280,0:POKE 53281,0
7304 POKE 646,11
7305 V=53248
7306 POKE V+5,0
7307 POKE V+4,0
7310 FOR Y=1 TO 4
7320 PRINT CHR$(17)
7330 NEXT Y
7340 PRINT TAB(14)"oILDERNESS!"
7350 PRINT
7360 PRINT TAB(11)"♠ GAME OF FANTASY."
7370 FOR Y= 1 TO 3000:NEXT Y
7380 PRINTCHR$(147):POKE 53272,21:RETURN

READY.
```

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